AMENDMENTS

IN THE CLAIMS

Please cancel claim 29, 38 and 49 and amend claims 28 and 53 as shown below.

1-27. (Canceled)

28. (Currently Amended) A transgenic rat whose genome comprises:

a first stably integrated transgenic nucleotide sequence encoding a human CD4~~,~~;

a second stably integrated transgenic nucleotide sequence encoding a human chemokine receptor; and

a third stably integrated transgenic nucleotide sequence encoding a ~~polypeptide~~ subunit of human elongation factor P-TEFb comprising cyclin T that interacts with an HIV sequence;

wherein the first, second and third transgenes are operably linked to a lymphocyte promoter to be preferentially expressed which results in HIV adhesion and infection of T-cells and/or macrophages.

29. (Canceled)

30. (Previously Presented) The transgenic rat of claim 28, wherein the polypeptide encoded by the third transgene that interacts with an HIV sequence is Cyclin T.

31. (Previously Presented) The transgenic rat of claim 28, wherein the rat is homozygous for human CD4.

32. (Previously Presented) The transgenic rat of claim 28, wherein the rat is homozygous for a human chemokine receptor.

33. (Previously Presented) The transgenic rat of claim 28, wherein the chemokine receptor is selected from the group consisting of: CCR3, CCR5, CCR2B, CXCR4, CXR3, CCR8, GPR15, STRL33, APJ, and LTB_4.

34. (Previously Presented) The transgenic rat of claim 33, wherein the chemokine receptor is CCR5.

35. (Previously Presented) The transgenic rat of claim 29, wherein the chemokine receptor is CCR5.

36. (Previously Presented) The transgenic rat of claim 28, wherein the chemokine receptor is CCR5.

37. (Previously Presented) An isolated cell derived from the rat of Claim 28, wherein said isolated cell expresses said transgenes.

38. (Canceled)

39. (Previously Presented) The transgenic rat of claim 33, wherein the third transgene encodes Cyclin T.

40. - 49. (Canceled)

50. (Previously Presented) The transgenic rat of claim 28, wherein the chemokine receptor is CXCR4.

51. (Previously Presented) An isolated rat cell of claim 37, wherein second stably integrated nucleotide sequence encodes a human CCR5 chemokine receptor.

52. (Previously Presented) An isolated rat cell of claim 37, wherein second stably integrated nucleotide sequence encodes a human CXCR4 chemokine receptor.

53. (Currently Amended) A method of producing a transgenic rat, comprising:

transforming a cell comprising a vector, the vector comprising:

a first transgene encoding a human CD4~~,~~;

a second transgene encoding a human chemokine receptor; and

a third transgene encoding a ~~polypeptide~~ subunit of human elongation factor P-TEFb comprising cyclin T that interacts with a HIV sequence, wherein the first, second and third transgenes are operably linked to a lymphocyte promoter;

introducing the transformed cell into a blastocoel of a blastocyst;

positioning the modified blastocyst into a uterine horn of a pesudopregnant female rodent; and

allowing the female rodent to go to term, wherein offspring of the female rodent are screened for having the three transgenes.

54. (Previously Presented) A method of claim 53, wherein the second transgene encoding a human chemokine receptor is CCR5 and the third transgene is Cyclin T.